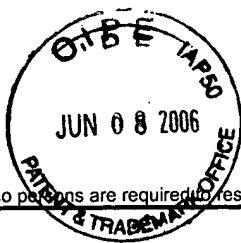


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PTO/SB/33 (07-05)

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## PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)

AARL 01-23 04

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]

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Typed or printed name \_\_\_\_\_

Application Number

10/025,045

Filed

12/18/2001

First Named Inventor

William A. Ahroon et al.

Art Unit

2654

Examiner

D. Knepper

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal. Petition for Extension of Time and Fee also enclosed.

The review is requested for the reason(s) stated on the attached sheet(s).

Note: No more than five (5) pages may be provided.


I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.  
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.  
(Form PTO/SB/96)

☒ attorney or agent of record.  
Registration number 46,075

☐ attorney or agent acting under 37 CFR 1.34.  
Registration number if acting under 37 CFR 1.34 \_\_\_\_\_

  
Signature

Kevin M. Barner  
Typed or printed name

\_\_\_\_\_  
Telephone number

June 8, 2006

\_\_\_\_\_  
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below\*.

☐ \*Total of \_\_\_\_\_ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: William A. Ahroon Confirmation No.: 6064  
Serial No. : 10/025,045 Examiner: David D. Knepper  
Filed : December 18, 2001 Group Art Unit: 2654  
For : DETERMINING SPEECH RECEPTION THRESHOLD

**Request for Pre-Appeal Conference & Brief**

Commissioner for Patents  
Box 1450  
Alexandria, VA 22313-1450

Sir:

For the reasons set forth below, Applicant requests that the final rejection of claims 1-20 be reviewed and that the rejection of these claims be overturned.

**ARGUMENTS**

***Claim Rejections Under 35 U.S.C. §112, ¶¶1 & 2***

It is asserted in the Final Office Action that "calibrating at least one recorded spoken word...", as that term is used in claims 1-20, is not enabled by the specification (see rejection under §112, ¶1) and, thus, the claimed term is indefinite because it is "unclear what is being done to achieve this desired result." (see rejection under §112, ¶2). The drawings are objected to "because there is no figure showing a 'calibrated spoken word.'"

As previously explained, e.g., in the Amendments filed on October 18, 2005 and March 27, 2006, a skilled artisan would understand that "calibrating" a previously recorded word means that the respective sound energy of that word is set to "substantially the same sound energy" as the other recorded words, "at least as viewed against some common scale." (See, e.g., Claim 1 and Specification, page 5, lines 18-19). It is further disclosed in the specification that calibrating the recorded words in this manner "insures that the SRT testing measures speech reception across words having the same or similar energies." (See, e.g., Specification, page 5, lines 20-21). Further, it is disclosed that;

two of the common scales which the inventor has used to calibrate the words are the Root Mean Squared (RMS) energies of a waveform representative of the words (e.g., a computer data file containing binary information representative of a voltage waveform produced by a microphone), and positive peak values (such positive peak values relative to a defined baseline) of waveforms representative of the words (e.g., a computer data file containing binary information representative of a voltage waveform produced by a microphone)."

(Specification, page 5, lines 21-27).

On page 9, lines 4-9, of the specification it is also disclosed that, the “calibrated” spoken words are derived by scaling each recorded word, for example, “in a succession of Microsoft WAV files ... such that the RMS energy of the waveforms of the recorded words are substantially equal.” In an exemplary embodiment the “calibrated” spoken words are “achieved by a computer program running internal to the system unit” which scales each recorded word, for example, in a succession of WAV files, “such that the positive peak value of the waveforms representative of the recorded words are substantially equal.” (Page 9, lines 15-20). It is also disclosed that the individual peak-to-peak values, maximum-absolute-peak value, etc. may also be used to scale the waveforms. (Specification, page 9, lines 20-25).

One of ordinary skill in the art would clearly understand that in accordance with the disclosed exemplary embodiments of the invention, a computer data file representative of voltage waveforms produced by a microphone, such as WAV files of recorded words, are scaled in order to make the sound energy of each recorded word the same, thus “calibrating” the recorded words. Because a skilled artisan would know how to perform a method of determining a speech reception threshold, including a “calibration” procedure, in accordance with the claimed invention, particularly after reading the current specification, Applicant submits that the claims are enabled under 35 U.S.C. § 112, ¶1.

Furthermore, the claimed calibration requirement does, in fact, “find sufficient disclosure under 35 U.S.C. § 112, ¶1.” See, for example, the specification at pages 2, 4-6 and 9. Accordingly, in addition to obviating the rejection under 35 U.S.C. § 112, ¶1, the apparent basis for the Examiner’s rejection under 35 U.S.C. § 112, ¶2, is also rendered moot. Particularly, the grounds of rejection assert that claims 1-20 are indefinite because it is unclear how to achieve the calibration step recited in the claims. As noted above, however, the specification clearly informs a skilled artisan how to carry out the claimed invention, including the calibration step. For example, as required by independent claim 1, the recorded words are *calibrated* such that they each have the same sound energy. Further, as claimed, this calibration function occurs before the words are presented to the test subject.

Lastly, with respect to the drawings, for similar reasoning as set forth above with respect to the claim rejections under 35 U.S.C. § 12, ¶¶1 & 2, Applicant respectfully submits that no detailed drawing of an exemplary calibration procedure is required. The application as originally filed provides one of ordinary skill in the art all the information necessary to make and use the invention.

### ***New Matter Rejection***

The final office action further alleges that the Amendment filed October 18, 2006 introduced “new matter” by adding the language, “calibrating at least one recorded spoken word by controlling each of the at least one recorded spoken words to have substantially the

same sound energy.” Applicant respectfully disagrees with the characterization that this language is “new matter.” The specification clearly supports this language, as discussed at length above and in previous responses. Ample support for this recitation in the claims is found, for example, at page 5, line 17 through page 6, line 2; page 9, lines 15-25 of the specification as originally filed.

### **37 CFR 1.78(b) Rejection**

The grounds of rejection allege that claims 1-4 of the present application conflict, under 37 CFR 1.78(b), with claims 1-4 of co-pending application no. 10/025,042. Applicant respectfully disagrees. Initially, the Examiner has failed to point out that which is in conflict with respect to these claims. Accordingly, this *rejection* is clearly erroneous to the extent it fails to prove Applicant with any basis therefor. Without being informed of the alleged conflict, Applicant can not begin to address this *rejection*.

Furthermore, Applicant submits that the indicated claims, claims 1-4, are not in conflict. Claims 1-4 of the present application include, *inter alia*, “measuring a speech reception threshold indicative of a sound level at which the test subject can recognize the presented recorded spoken word or words.” In comparison, claims 1-4 of co-pending application ser. no. 10/025,042 include, *inter alia*, “measuring speech intelligibility indicative of a percentage of the presented at least one calibrated spoken word or words that the test subject successfully identified.” It is clear that claims 1-4 in the present application are different than claims 1-4 of co-pending application no. 10/025,042, with attendant differing scopes and, accordingly, the claims do not conflict with each other.

### **Rejection of Claims 1-4, 8-13, 19 and 20 Under 35 U.S.C. § 103 over Revit**

The Final Office Action asserts that claims 1-4, 8-13, 19 and 20 are rendered obvious by the disclosure of Revit. In particular, it is asserted that Revit suggests calibrating at least one recorded spoken word by controlling each of the at least one recorded spoken words to have substantially the same sound energy, as expressly required by independent claims 1 and 10. The alleged support for the rejection is based on Revit’s calibration procedure 911, depicted in Fig. 9. Applicant submits that the calibration procedure mentioned in Revit is completely different than the disclosed and claimed calibration procedure in the present application and, further, the Revit calibration procedure does not in any way suggest the claimed calibration in claims 1 and 10 of the present application.

In particular, at paragraph [0087] Revit discloses “the gain of the corresponding audio power amplifier is then adjusted so that the sound level measured at [a particular location] matches the calibration level achieved during the recording calibration.” This method of calibration is similar to the prior art method discussed in the background section of the present application. That is, according to Revit the gain of the power amplifier driving the speaker is adjusted to achieve a predetermined level. In accordance with Revit, interference

sounds are recorded and, additionally, a target speech signal is recorded. The target speech signal is then output from a power amplifier and a loudspeaker both designated for the target speech signal and the interference noise is output on multiple power amplifiers and respective loudspeakers designated for the noise. A test subject is strategically located with respect to the various loudspeakers and the amplifier gain for the target speech signal and the interference noise signal(s) are independently manually adjusted, i.e., by manipulating respective attenuators. (See, e.g., par. [0051]-[0052]).

The apparent object of the Revit invention is to assess performance of real-world hearing and hearing aids. The loudness level, i.e., amplifier gain, for the speech signal and the interference signals are independently adjusted to simulate a real-world acoustic environment with respect to the test subject. Similar to the loudness adjustment processes described in the background section of the present application, Revit does not contemplate the calibration of individual words relative to each other, i.e., by scaling their respective sound energies to be substantially the same. For at least the above reason Revit does not teach or suggest the calibrating step recited in independent claims 1 and 10 and, thus, claims 1 and 10 and those claims dependent thereon, in particular claims 2-9 and 11-18 are not rendered obvious over Revit.

The Final Office Action further asserts that Revit discloses measuring a speech reception threshold utilizing the at least one calibrated spoken word because Revit's "tester keeps score ... of words repeated correctly by the listener." In response, Applicant submits that Revit does not teach or suggest the claimed measuring step because Revit does not teach or suggest "the at least one calibrated spoken word" as discussed above. The grounds of rejection admit that Revit fails to "explicitly teach 'calibrated recorded spoken [words].'" (Office Action, page 12). Alternatively, it is asserted that Revit teaches recordings of "real conversations taking place in real-life environments" (par. [0099]) and that it would have been obvious to apply the calibration of the interference sounds, discussed above, to the words of the recorded conversations "because [Revit] teaches that the material he is recording may include words as portions of sentences." (Office Action, page 11). This argument simply does not follow. Just because the interference sounds and the sentences including words are both recorded does not imply that any given process applied to one is necessarily applied to the other. Specifically, just because the interference sounds are "calibrated" does not make it obvious to also "calibrate" recorded conversations.

Furthermore, even if it were obvious to calibrate the recorded sentences in Revit merely because the recorded interference sounds were calibrated, the claimed invention is still not rendered obvious because Revit fails to teach or even suggest calibrating the words by controlling each of the at least one recorded spoken words to have substantially the same sound energy. For this additional reason Revit does not render any of claims 1-4, 8-13, 19 and 20 obvious under 35 U.S.C. § 103.

***Rejection of Claims 5-18 Under 35 U.S.C. § 103 over Revit in view of Taylor***

Claims 5-18 are rejected under 35 U.S.C. § 103 as being unpatentable over Revit in view of Taylor. Claims 5-9 depend from claim 1 and claims 11-18 depend from claim 10. Neither Revit nor Taylor disclose the combination of steps as recited in claim 1, as discussed above and, thus, claim 1 is patentable over the proposed combination of Revit and Taylor. Accordingly, claims 5-9 are patentable at least for the same reason. Further, neither Revit nor Taylor disclose the combination of means, including the means for calibrating the recorded words and the means for presenting the calibrated words to the test subject, as recited in claim 10. Claim 10 is, thus, patentable over Revit and Taylor and claims 11-18 which depend from claim 10 are patentable for at least the same reason.


***Rejection of Claims 8 and 17 Under 35 U.S.C. § 103 over Revit, Taylor and Carr***

Claims 8 and 17 are rejected under 35 U.S.C. § 103 as being unpatentable over Revit in view of Taylor and Carr. Because claims 8 and 17 each depends from independent claim 1 or claim 10, which are patentable as discussed above, and because Taylor and Carr each fails to compensate for the deficiencies discussed above related to Revit, Applicant submits that claims 8 and 17 are patentable over the art of record for at least the same reasons as set forth above.

***Conclusion***

In view of the foregoing, as well as the remarks presented in at least the October 18, 2005 and March 27, 2006 responses, Applicant submits that the rejections asserted against claims 1-20 are erroneous and that all of the claims of the present application are allowable. Accordingly, reconsideration of the rejections and favorable disposition of the present application are respectfully requested.

Respectfully submitted,  
CAHN & SAMUELS, L.L.P.

By:   
Kevin M. Barner, Reg. No. 46,075  
2000 P St., NW, Ste. 200  
Washington, D.C. 20036  
Telephone: (202) 331-8777  
Fax: (202) 331-3838

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